CHECK LIST FOR FOURTH GRADE MATHEMATICS *CHECKS FOR UNDERSTANDING*

	DATE	CHECKS FOR UNDERSTANDING
✔		**Column3**
		Standard 1 – Mathematical Processes
		0406.1.1 Understand the relationship between use of answers and the accuracy of the number.
		0406.1.2 Identify the range of appropriate estimates, including over-estimate and under-estimate.
		0406.1.3 Connect operations with decimals to money and make estimates
		0406.1.4 Use commutative, associative, and distributive properties of numbers including oral descriptions of mathematical reasoning.
		0406.1.5 Measure using ruler, meter stick, clock, thermometer, or other scaled instruments.
		0406.1.6 Identify geometric or physical attributes that are appropriate to measure in a given situation.
		0406.1.7 Translate the details of a contextual problem into diagrams and/or numerical expressions, and express answers using appropriate units.
		0406.1.8 Match the spoken, written, concrete (including base ten blocks), and pictorial representations of decimals.
		0406.1.9 Develop a story problem that illustrates a given multiplication or division number sentence.
		0406.1.10 Use age-appropriate books, stories, and videos to convey ideas of mathematics.
		Standard 2 – Number & Operations
		0406.2.1 Compose and decompose quantities according to place value.
		0406.2.2 Understand decimal notation as an extension of the base-ten number system.
		0406.2.3 Multiply two- and three-digit whole numbers.
		0406.2.4 Understand and use a reliable algorithm for multiplying multi-digit numbers and dividing numbers by a single-digit divisor accurately and efficiently.
		0406.2.5 Understand that division by zero is undefined.
		0406.2.6 Divide three-digit whole numbers by one-digit divisors fluently with pencil and paper.
		0406.2.7 Identify factors of whole numbers and model factors and products beyond basic multiplication facts using arrays and area models.
		0406.2.8 Generate equivalent forms of whole numbers, decimals, and common fractions (e.g., 1/10, ¼, ½, ¾).
		0406.2.9 Compare equivalent forms whole numbers, fractions, and decimals to each other and to benchmark numbers
		0406.2.10 Use models to understand division as the inverse of multiplication, partitioning, and repeated subtraction.
		0406.2.11 Use models, benchmarks, and equivalent forms to compare fractions/decimals and locate them on the number line.
		0406.2.12 Understand and use decimal numbers up to hundredths and write them as fractions.
		0406.2.13 Solve multi-step problems of various types using whole numbers, fractions, and decimals.
		0406.2.14 Understand the role of the remainder in division.
		Standard 3 – Algebra
		0406.3.1 Find an unknown quantity in simple equations using whole numbers, fractions, decimals, and mixed numbers.
		0406.3.2 Translate between symbols and words to represent quantities in expressions or equations.
		0406.3.3 Create, explain and use a rule to generate terms of a pattern or sequence.
		0406.3.4 Translate between symbolic, numerical, verbal, or pictorial representations of a whole number pattern or relationship.
		Standard 4 – Geometry & Measurement

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		0406.4.1 Identify the basic parts of circles.
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		0406.4.3 Classify angles and triangles as obtuse, acute, or right.
		0406.4.4 Measure and draw angles.
		0406.4.5 Determine if a figure is a polygon.
		0406.4.6 Recognize the use of decimals in metric measures.
		0406.4.7 Measure liquids using both standard units and metric units.
		0406.4.8 Recognize that a measure of area represents the total number of same-sized units /that cover the shape without gaps or overlaps.
		0406.4.9 Recognize that area does not change when 2-dimensional figures are cut apart and rearranged.
		0406.4.10 Connect area measure to multiplication using a rectangular area model.
		0406.4.11 Estimate areas of rectangles in square inches and square centimeters.
		0406.4.12 Estimate the size of an object with respect to a given measurement attribute (length, perimeter, area, or capacity).
		0406.4.13 Compare objects with respect to a given attribute such as length, area, and capacity.
		0406.4.14 Explain how the components of a coordinate system are used to determine location.
		0406.4.15 Explore properties of paths between points.
		0406.4.16 Examine transformations in the coordinate plane.
		0406.4.17 Predict the results of a transformation of a geometric shape.
		0406.4.18 Determine whether a geometric shape has line and/or rotational symmetry.
		0406.4.19 Design and analyze simple tilings and tessellations.
		0406.4.20 Draw lines of symmetry in 2-dimensional figures.
		0406.4.21 Recognize two-dimensional faces of three-dimensional shapes.
		Standard 5 – Data Analysis, Statistics, & Probability
		0406.5.1 Create and label appropriate scales for graphs.
		0406.5.2 Evaluate how well various representations show the collected data.
		0406.5.3 Interpret and prepare pie charts using appropriate measurements of angles.
		0406.5.4 Develop and use stem-and-leaf plots.
		0406.5.5 Use measures of central tendency to compare two sets of related data.
		0406.5.6 Determine a simple probability.
		0406.5.7 Express a probability pictorially.